

ABSTRACT OF THE DISCLOSURE

In a power supply apparatus for discharge surface treatment which uses a green compact electrode as a discharge electrode, allows a pulse-type discharge to take place between said 5 discharge electrode and a workpiece, and forms a film, which is made of an electrode material or a material obtained when the electrode material reacts to a discharge energy, on a surface of the workpiece following three measures are taken. (1) When a discharge voltage detected by the voltage detection means is 10 less than or equal to discharge detection voltage set value which is slightly lower than a power supply voltage, the electric current cut-off means forcibly cuts off an output of the oscillator so that long-time pulse is prevented. (2) A capacitor is connected in parallel with an oscillation circuit of the 15 oscillator, and the long-time pulse is prevented by capacitor discharge. (3) Time that the discharge takes place once is controlled by a timer so that the long-time pulse is prevented.